In the Claims

1. (Previously Presented) A radiographic detector panel support comprising:

a body composed of a composite material sufficient to structurally support components of a radiographic detector;

radiation absorbing material interspersed within the body; and

wherein the radiation absorbing material has a mass sufficient to prevent detection of radiation reflected off a back cover of the radiographic detector by radiation detecting components of the radiographic detector.

2. (Original) The support of claim 1 wherein the radiation absorbing material includes one of a layer of lead and a layer of barium sulfate.

3. (Original) The support of claim 1 further comprising a layer of thermal insulating material secured to the body.

4. (Canceled)

5. (Original) The support of claim 1 wherein the radiation absorbing material includes tungsten.

6. (Original) The support of claim 1 wherein the composite material includes graphite.

7. (Original) The support of claim 1 wherein the body is a planar body and is configured to separate scintillation components of a radiographic detector from a control board of electronics of the radiographic detector.

8. (Original) An x-ray detector system comprising:

a scintillator configured to convert radiographic energy to light;

a detector array having a plurality of detector elements to detect light from the scintillator;

a control board having a plurality of electronic components to control the detector array during data acquisition and data readout; and

a panel support disposed between the detector array and the control board, the panel support at least partially formed of radiation absorbing material.

9. (Original) The x-ray detector system of claim 8 wherein the panel support includes at least one layer of radiation absorbing material.

10. (Original) The x-ray detector system of claim 9 wherein the at least one layer has a surface area equivalent to that of the detector array.

11. (Original) The x-ray detector system of claim 9 wherein the radiation absorption material includes one of tungsten, lead, and barium sulfate.

12. (Original) The x-ray detector system of claim 8 wherein each detector element includes a light sensitive area and an electronics area supported by a glass substrate, and wherein the electronics area includes an electronic switch connected to a capacitive element and the control board.

13. (Original) The x-ray detector system of claim 12 wherein the electronic switch includes a thin-film-transistor designed to bias the capacitive element in an energy storage mode during data acquisition and connect the capacitive element to readout electronics of the control board during a readout mode.

14. (Original) The x-ray detector system of claim 12 wherein the panel support is further configured to support the glass substrate such that the glass substrate can withstand a point-load of 300 lbs. without fragmentation.

15. (Original) The x-ray detector system of claim 8 wherein the scintillator is comprised of Cesium iodide.

16. (Original) The x-ray detector system of claim 8 further comprising a cover housing the scintillator, the detector array, the control board, and the panel support, and the cover having a handle to facilitate portability thereof.

17. (Original) A method of manufacturing a flat panel x-ray detector comprising the steps of:

providing a bulk of non-x-ray absorbing material designed to support internal components of an x-ray detector and wherein the non-x-ray absorbing material is capable of supporting the internal components when a deflective force is applied to the x-ray detector;

incorporating x-ray absorbing material into the bulk; and

forming an x-ray detector panel support having non-x-ray and x-ray absorbing materials.

18. (Original) The method of claim 17 further comprising the steps of:

fashioning a first layer of non-x-ray absorbing material and a second layer of non-x-ray absorbing material from the bulk of non-x-ray absorbing material; and

securing an x-ray absorbing layer to the first and the second layers of non-x-ray absorbing material.

19. (Original) The method of claim 18 further comprising the step of bonding the layers of non-x-ray absorbing material and the layer of x-ray absorbing material to one another to form a composite layered structure.

20. (Original) The method of claim 18 further comprising the step of:

disposing a glass substrate and detector array on the first layer of non-x-ray absorbing material;

disposing a layer of scintillation material adjacent the detector array;

arranging the first layer and the second layer of non-x-ray absorbing material, the x-ray absorbing layer, the glass substrate and detector array, the layer of scintillation material, and a control board in a stacked arrangement; and

disposing the stacked arrangement in a housing having a handle.

21. (Original) The method of claim 17 wherein the non-x-ray absorbing material includes graphite.

22. (Original) The method of claim 17 wherein the x-ray absorbing material includes one of lead, tungsten, and barium sulfate.

23. (Original) The method of claim 17 further comprising the steps of adding an x-ray absorbing material in powder form to the bulk of non-x-ray absorbing material, mixing the powder of x-ray absorbing material with the non-x-ray absorbing material, and curing the mixture.